Amendment and Response

Applicants: Steven Neville Chatfield et al.

Serial Number: 09/591,447

reverting mutation in the *surA* gene and a pharmaceutically acceptable carrier or diluent.

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- 7. (Twice amended) The composition according to claim 1 wherein the bacterium is further attenuated by a non-reverting mutation in a second gene.
- 8. (Amended) The composition according to claim 7 wherein the second gene is an *aro* gene, a *pur* gene, the *htrA* gene, the *ompR* gene, the *galE* gene, the *cya* gene, the *crp* gene or the *phoP* gene.
- 9. (Amended) The composition according to claim 8 wherein the *aro* gene is *aroA*, *aroC*, *aroD* or *aroE*.
- 10. (Twice amended) The composition according to claim 1 wherein the mutation in the *surA* gene is a defined mutation.



- 11. (Twice amended) The composition according to claim 1 wherein the bacterium has no uncharacterised mutations in the genome thereof.
- 12. (Twice amended) The composition according to claim 1 wherein the bacterium is a bacterium that infects via the oral route.
- 13. (Twice amended) The composition according to claim 1 wherein the bacterium is from the genera Salmonella, Escherichia, Vibrio, Haemophilus, Neisseria, Yersinia, Bordetella or Brucella.

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14. (Amended) The composition according to claim 13 wherein the bacterium is Salmonella typhimurium, Salmonella typhi, Salmonella enteritidis, Salmonella choleraesuis, Salmonella dublin, Escherichia coli, Haemophilus influenzae, Neisseria gonorrhoeae, Yersinia enterocolitica, Bordetella pertussis or Brucella abortus. 15. (Twice amended) The composition according to claim 1 wherein the bacterium is genetically engineered to express an antigen from another organism. (Amended) The composition according to claim 15 wherein the antigen is fragment C of tetanus toxin. 17. (Twice amended) The composition according to claim 15 wherein £8 expression of the antigen is driven by the *nirB* promoter or the *htrA* promoter. (Amended) A method of invoking an immune response in a host to a pathogenic bacterium, which method comprises administering to the host a pathogenic bacterium attenuated by a non-reverting mutation in the surA gene. (Amended) The composition according to claim 7 wherein the Elo mutation in the second gene is a defined mutation. (Amended) The composition according to claim 16 wherein

Attorney Docket: KCO1003US

expression of the antigen is driven by the *nirB* promoter or the *htrA* promoter.

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Please add the following new claims 31 to 41:

31. (New) The method according to claim 20 wherein the bacterium is further attenuated by a non-reverting mutation in a second gene.

Attorney Docket: KCO1003US

32. (New) The method according to claim 31 wherein the second gene is an *aro* gene, a *pur* gene, the *htrA* gene, the *ompR* gene, the *galE* gene, the *cya* gene, the *crp* gene or the *phoP* gene.

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- 33. (New) The method according to claim 32 wherein the *aro* gene is *aroA*, *aroC*, *aroD* or *aroE*.
- 34. (New) The method according to claim 20 wherein the mutation in the *surA* gene is a defined mutation.
- 35. (New) The method according to claim 20 wherein the bacterium has no uncharacterised mutations in the genome thereof.
- 36. (New) The method according to claim 20 wherein the bacterium is a bacterium that infects via the oral route.
- 37. (New) The method according to claim 20 wherein the bacterium is from the genera Salmonella, Escherichia, Vibrio, Haemophilus, Neisseria, Yersinia, Bordetella or Brucella.
- 38. (New) The method according to claim 37 wherein the bacterium is Salmonella typhimurium, Salmonella typhi, Salmonella enteritidis, Salmonella